

REMARKS

Applicant submits that by the present Amendment and Remarks, this application in placed in clear condition for immediate allowance. Moreover, the present Amendment does not generate any new matter issue or any new issue for that matter. This is because the limitations of claim 5, previously dependent upon claim 1, have been incorporated into claim 1 and claim 5 cancelled, and the limitations of claim 21, previously dependent upon claim 17, having been incorporated into claim 17 and claim 21 cancelled. Accordingly, the present Amendment does not generate any new matter issue or any new issue for consideration. Entry of the present Amendment and Remarks, and favorable consideration, is threefold solicited pursuant to the provisions of 37 C.F.R. §1.116.

Claims 1 through 4, 6 through 20 and 22 are pending in this application, of which claims 7 through 16 and 22 stand withdrawn from consideration pursuant to the provisions of 37 C.F.R. §1.142(b). By the present Amendment, the limitations of claim 5 have been incorporated to claim 1, claim 5 cancelled, and the limitations of claim 21 incorporated into claim 17, and claim 21 cancelled. Accordingly, the present Amendment does generate any new matter issue or any new issue for that matter.

Claims 1, 3 through 4, 6, 17, 19 and 20 were rejected under 35 U.S.C. §102 for lack of novelty as evidenced by Zussman.

This rejection is traversed. Indeed, this rejection has been rendered moot by incorporating the limitations of claim 5 into claim 1 and claim 21 into claim 17, claims 5 and 21

not being subject to this rejection. Accordingly, withdrawal of the rejection under 35 U.S.C. §102 is solicited.

Claims 1 through 6 and 17 through 21 were rejected under 35 U.S.C. §103 for obviousness predicted upon Zumman in view of Berger et al., Hayashi and Farquhar et al.

In the statement of the rejection, the Examiner admitted that the prior art is silent about the surface roughness of the connecting lines. Then, rather than make factual determinations, the Examiner served up the following nutritionless rational:

Since applicant has not stated the less than or equal to 1 μ m surface roughness is for any particular purpose, the examiner is taking the position that a surface roughness outside of this limitation would perform the same job.

What relevance that statement has to the ultimate legal conclusion of obviousness under 35 U.S.C. §103 remains a mystery on this record. Therefore, this rejection is traversed as factually and legally erroneous.

The Examiner admits that after attempting to piece together four references, the Examiner still comes up short on the surface roughness limitation for the connecting lines. At this point, the Examiner is required to establish the requisite realistic motivation which would have led one having ordinary skill in the art to modify whatever conceivable device would have reasonably been suggested by the combined disclosures of the four applied references to arrive at the claimed invention. As pointed above, the Examiner writes his own law in terms of shifting the burden back on Applicant. Not only does this approach deny Applicant **procedural due process of law** but it is completely legally erroneous.

This is because in order to establish the requisite fact-based motivation, the Examiner must make **clear and particular** factual findings as to a **specific** understanding or a **specific** technological principle and, based upon such **facts**, explain **why** one having ordinary skill in the art would have been realistically impelled to modify particular prior art, in this case presumably the device disclosed by Zussman, with or without modifications in view of Berger, Hayashi and Farquhar et al., to arrive at the claimed invention. That burden has not been discharged.

Specifically, the Examiner does not point to any facts. The Examiner does not identify any technical rationale. The Examiner simply sheds his burden of establishing a *prima facie* case and then attempt to shift the burden back to Applicant. This approach is legally erroneous.

It is the Examiner who has the **initial burden** of establishing a *prima facie* basis to deny patentability to the claimed invention, which includes establishing the requisite realistic motivation. *In re Glaug*, 283 F.3d 1335, 62 USPQ2d 1151 (Fed. Cir. 2002); *In re Mayne*, 104 F.3d 1339, 41 USPQ2d 1451 (Fed. Cir. 1997); *In re Deuel*, 51 F.3d 1552, 34 USPQ2d 1210 (Fed. Cir. 1995). Until such time as the Examiner has established a *prima facie* case of obviousness, Applicant need not offer any explanation. *In re Deuel, supra*; *In re Rijckaert*, 9 F.3d 1531, 28 USPQ2d 1955 (Fed. Cir. 1993); *In re Bell*, 991 F.2d 781, 26 USPQ2d 1529 (Fed. Cir. 1993); *In re Fritch*, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992) *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). To attempt to place the burden on Applicant without establishing the *prima facie* case denies Applicants **PROCEDURAL DUE PROCESS OF LAW**. *In re Mullin*, 481 F.2d 1333, 179 USPQ 97 (CCPA 1973).

Based upon the foregoing, it should be apparent that a *prima facie* basis to deny patentability to the claimed inventions under 35 U.S.C. §103 has not been established. Moreover

the Examiner has improperly interpreted the present disclosure. Specifically, and adverting to page 9 of the written description of the specification, lines 11 through 19, it should be apparent that by employing the range of surface roughness now specified in independent claims 1 and 17, the influence due to the skin effect is eliminated, and a module having improved high frequency performance is formed. For example, when copper is employed as the material for the interconnect line, the skin depth at 1GHz is about 2 μm . Therefore, providing a surface roughness Ra of the pattern interconnect line of equal to or less than 1 μm effectively improves high frequency performance. Thus, the purpose and effect of providing the surface roughness Ra of equal to or less than 1 μm is clearly disclosed.

Applicants would point out that the Examiner does not even pretend that any of the applied references disclosed that the surface roughness is an art recognized result effective variable. This being the case, it is completely legally erroneous to conclude that one having ordinary skill in the art would have been realistically motivated to modify such an unidentified result effective variable in any way. *In re Rijckaert, supra; In re Yates, 663 F.2d 1054, 211 USPQ 1149 (CCPA 1981); In re Antonie, 559 F.2d 618, 195 USPQ 6 (CCPA 1977).*

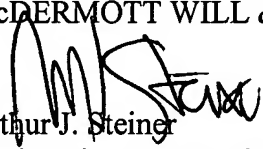
It should be, therefore, apparent that a *prima facie* basis to deny patentability to the claimed inventions under 35 U.S.C. §103 has not been established. Applicants, therefore, submit that the imposed rejection of claims 1 through 6 and 17 through 21 under 35 U.S.C. §103 for obviousness predicated upon Zussman in view of Berger et al., Hayashi and Farquhar et al. is not factually or legally viable and, hence, solicit withdrawal thereof.

Based upon the foregoing it should be apparent that the imposed rejections have been overcome, and that all pending claims are in condition for immediate allowance. Favorable consideration is, therefore, solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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